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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/297,382	04/30/1999	VINCENT LETELLIER	Q53893	9694

7590 09/17/2004

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WASHINGTON, DC 200373202

EXAMINER
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TRAN, DZUNG D

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/297,382

Applicant(s)

LETELLIER ET AL.

Examiner

Dzung D Tran

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 07/14/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-16 and 18-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-8, 14, 15, 21, 22, 25 and 28-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 9, 11-13, 16, 18-20, 23, 24, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Specification***

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 9, 11-12, 14, 18-19, 23-24, 26-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 9, 11-12, 14, 18-19, 23-24, 26-27 requires a "wavelength modulation means". However, the specification and drawing do not provide any specific detail to teach a "wavelength modulation means" and how it relates to the invention. Without such detail description, the disclosure does not enable a person of ordinary to made and use the claimed invention.

3. The specification as originally filed does not provide support for the additional submitted drawings (figures 3-5). Therefore, the added figures 3-5 contain new matter and are not accepted.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9, 11-13, 16, 18-20, 23, 24, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta et al. U.S. patent no. 5,737,105 in view of Atlas U.S. patent no. 5,930,024.

In considering claims 9, 13, 16 and 20 Ohta discloses an amplified (figure 3, element 33) and non-bidirectional fiber optic link (figure 3, element 31) including optical loopback (column 5, lines 50-52) of amplifiers to enable COTDR. Ohta differs from claim 9 of the present invention in that Ohta does not specific discloses optical link comprising means for widening the spectrum of the signal in at least one transmission direction, wherein said means for widening the spectrum comprises wavelength modulation means. Atlas discloses the wavelength modulator for broadening the spectrum of the signal (figures 1-6, elements 22, 24, 26, column 2, line 62 to column 3, line 16, col. 3, lines 41-43, 65-67, col. 4, lines 7-10, col. 5, lines 15-19, 56-61). At the time the invention was made, it would have been obvious to an artisan to include the modulator of Atlas in the system of Ohta. One of ordinary skill in the art would have

Art Unit: 2633

been motivated to do this the wavelength modulator of Atlas offers a larger optical spectral width, therefore it allows higher optical powers to be injected into the fiber before the onset of stimulated Brillouin scattering (col. 5, lines 56-61).

In considering claims 11, 12, 18, 19, 24 and 27, Atlas further discloses the modulation rate in the range from 0.5 kHz to 10 GHz (claims 11, 18) (column 4, lines 42-64) which is few times greater than the bit rate of the link (claims 12, 19, 24, 27).

In considering claims 23 and 26, Atlas further discloses the modulation rate in the range from 1 kHz to 5 GHz (column 4, lines 42-64).

### ***Response to Arguments***

6. Applicant's arguments filed on 07/14/2004 have been fully considered but they are not persuasive.

Applicant argues that wavelength modulation, phase modulation and injection current of the laser, as described in the claims for widening the spectrum are known in the art and therefore one skill in the art would have been enabled to make and/or use the invention, as claim. Thus, it would have been obvious to an artisan to include the well known wavelength modulation mean in the system of Ohta for widening the spectrum.

Applicant further argues that Atlas's reference has a filing date of November 13, 1997, which is after the filing date of French Application no. 9710841, from which the present application claims benefit of priority. However, Atlas's reference has a Division

of application no. 08/741,251 (now US patent no. 5,892,607) dated Oct. 30, 1996 and a Provision application no. 60/029,588 dated Oct. 23, 1996.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (571) 272-3025.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jason Chan, can be reached on (571) 272-3022.

Application/Control Number: 09/297,382  
Art Unit: 2633

Page 6

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



**M. R. SEDIGHIAN**  
**PRIMARY EXAMINEE**